

WHAT IS CLAIMED IS:

1. An information communication system for performing information communication between a first system and a second system, comprising:

5 a first communication path which is used for information communication when a transfer size between the first system and the second system is smaller than a predetermined size and is capable of high-speed response when the transfer size is smaller than the predetermined size; and

10 a second communication path which is used for information communication when the transfer size between the first system and the second system is larger than the predetermined size and has a larger transfer capability than that of said first communication path when the transfer size is larger than the predetermined size,

15 wherein each of the first and second systems comprises main control means for controlling to selectively use one of said first and second communication paths in accordance with a size of information subjected to information communication with a counterpart system.

20 2. A system according to claim 1, wherein each of the first and second systems comprises:

25 an internal bus connected to said main control means;

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first interface control means for sequentially performing information communication with the counterpart system through said first communication path under the control of said main control means in the self system through said internal bus; and

second interface control means for performing instructed information communication with the counterpart system through said second communication path independently of said main control means in accordance with an instruction from said main control means in the self system.

3. A system according to claim 2, wherein said system further comprises:

at least one disk apparatus commonly accessible from the first and second systems; and

a third communication path for connecting the first and second systems to said disk apparatus, and when a failure occurs on a first path including said first communication path and said first interface control means or a second path including said second communication path and said second interface control means, said main control means controls to use said third communication path as an alternative path of the first or second path.

4. A system according to claim 2, wherein

the first and second systems comprise a duplex controller whose each controller incorporates a cache

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memory using a mirrored cache scheme, and

5        said second interface control means causes said  
second interface control means in the counterpart  
system to copy data stored in the cache memory in the  
self system to the cache memory in the counterpart  
system through said second communication path in  
accordance with an instruction from said main control  
means in the self system.

10        5. An information communication system  
comprising:

      a first communication path used for communication  
between a first system and a second system; and

      a second communication path used for communication  
between the first system and the second system,

15        wherein each of the first and second systems  
comprises means for determining one of said first  
communication path and said second communication path,  
through which data is to be transferred, on the basis  
of a type of data to be exchanged between the first  
20        system and the second system.

      6. A system according to claim 5, wherein each of  
the first and second systems comprises a controller for  
controlling a hard disk drive.

25        7. A system according to claim 6, wherein  
each of the first and second system comprises a  
cache memory for storing transferred from a host  
apparatus,

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a control signal necessary for transmitting data stored in the cache memory is transmitted to said first communication path, and

5 the data stored in the cache memory is transmitted to said second communication path.

8. A system according to claim 5, wherein each of the first and second systems comprises:

an internal bus connected to main control means;

10 first interface control means for sequentially performing information communication with the counterpart system through said first communication path under the control of said main control means in the self system through said internal bus; and

15 second interface control means for performing instructed information communication with the counterpart system through said second communication path independently of said main control means in accordance with an instruction from said main control means in the self system.

20 9. A system according to claim 8, wherein said system further comprises:

at least one disk apparatus commonly accessible from the first and second systems; and

25 a third communication path for connecting the first and second systems to said disk apparatus, and

when a failure occurs on a first path including said first communication path and said first interface

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control means or a second path including said second communication path and said second interface control means, said main control means controls to use said third communication path as an alternative path of the first or second path.

10. A system according to claim 8, wherein

the first and second systems comprise a duplex controller whose each controller incorporates a cache memory using a mirrored cache scheme, and

said second interface control means causes said second interface control means in the counterpart system to copy data stored in the cache memory in the self system to the cache memory in the counterpart system through said second communication path in accordance with an instruction from said main control means in the self system.

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